

**SECTION 10 22 19.13**  
**DEMOUNTABLE METAL PARTITIONS**  
**(ALTERNATE #2)**

**PART 1 - GENERAL**

**1.1 DESCRIPTION**

- A. This section specifies demountable partitions, metal faced sandwich type with mineral fiber core.

**1.2 RELATED WORK**

- A. Section 01 81 13, SUSTAINABLE DESIGN REQUIREMENTS for additional LEED requirements.
- B. Section 01 81 19, INDOOR AIR QUALITY REQUIREMENTS for VOC limit.
- C. Electrical Work: Division 26, ELECTRICAL.
- D. Door Hardware: Section 08 71 00, DOOR HARDWARE.
- E. Color of Finish: Section 09 06 00, SCHEDULE FOR FINISHES.

**1.3 DESIGN CRITERIA**

- A. Floor fastenings:  
Concealed and adjustable to variations in floor level and finish.
- B. Door and panel units:  
Interchangeable and not less than 1000 mm (40 inches) wide unless otherwise shown.
- C. Partition units containing doors:  
Adjustable vertically and capable of assembly on floors having normal deviations from a plane surface, without cutting the doors.
- D. Provide for installation of electrical wiring through vertical and horizontal frame members.

**1.4 PERFORMANCE REQUIREMENTS**

- A. Structural Performance: Provide demountable partitions capable of withstanding the effects of gravity loads and the following loads and stresses within limits and under conditions indicated:
  - 1. Load-Bearing Capacity of Panel System: Not less than 300-lb (136-kg concentrated) and 2.3-lb/linear inch (0.041-kg/linear mm) distributed proof load when tested according to BIFMA X 5.6, Section 6, Table 1.
  - 2. Transverse-Load Capacity of Panel System: Lateral deflection of not more than 1/120 of the overall span when tested under a uniformly distributed load of 5 lb/sq. ft. (24.4 kg/sq. m) according to ASTM E 72.

3. Seismic Performance: Provide demountable partitions capable of withstanding the effects of earthquake motions determined according to ASCE 7, "Minimum Design Loads for Buildings and Other Structures."

### 1.5 SUBMITTALS

- A. Submit in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.
- B. Samples:  
Metal panel, 200 mm (eight inches) square, with baked-on enamel finish, each color.
- C. Shop Drawings:  
Complete drawings, 1/2 full scale, showing details of construction and anchorage.
- D. LEED Submittals:
1. Credits MR 4.1 & 4.2: For products having recycled content, documentation indicating percentages by weight of post-consumer and pre-consumer recycled content.
    - a. Include statement indicating costs for each product containing recycled content.
  2. Credits MR 5.1 & 5.2: For products manufactured within 500 miles of project site and whose raw materials are extracted, harvested or recovered, within 500 miles of the project site, documentation indicating the location and distance of material manufacturer and point of extraction, harvest, or recovery for each raw material from the Project site.
    - a. Include statement indicating cost for each regional material and the fraction by weight that is considered regional.
  3. Credit MR 7: Certificates of chain of custody signed by manufacturers certifying that products specified to be made of certified wood were made from wood obtained from forests certified by an FSC-accredited certification body to comply with FSC 1.2, "Principles and Criteria." Include evidence that mill is certified for chain-of-custody by an FSC-accredited certification body.
    - a. Include statement indicating costs for each wood based product.
  4. Credit EQ 4.1: Manufacturer's product data for installation adhesives and sealants applied on site and within the vapor barrier, including printed statement of VOC content (in g/L).
  5. Credit EQ 4.2: Manufacturer's product data for installation paints and coatings applied on-site and within the vapor barrier, including printed statement of VOC content (in g/L).

**1.6 QUALITY ASSURANCE**

- A. Sound Transmission Characteristics: Where STC ratings are indicated, provide partitions with STC rating that was determined by testing an identical system according to ASTM E 90 and classified according to ASTM E 413 by a qualified independent testing agency.
- B. Fire-Test-Response Characteristics: Provide demountable partitions complying with the following requirements:
1. Where indicated, provide demountable partitions identical to those of assemblies tested for fire resistance per ASTM E 119 by UL or a testing and inspecting agency acceptable to authorities having jurisdiction.
    - a. Fire-Resistance Ratings: Indicated by design designations from UL's "Fire Resistance Directory" or from the listings of another testing and inspecting agency.
    - b. Assemblies or systems shall be identified with appropriate markings of applicable testing and inspecting agency.
  2. Surface-Burning Characteristics: Provide demountable partitions per ASTM E 84:
    - a. Flame-Spread Index: 25 or less.
    - b. Smoke-Developed Index: 450 or less.

**1.7 APPLICABLE PUBLICATIONS**

- A. American Society for Testing and Material (ASTM):
- A366-97.....Steel Sheet, and Strip, Carbon, Cold Rolled, and  
Commercial Quality
- C665-06.....Mineral-Fiber Blanket Thermal Insulation for  
Light Frame Construction and Manufactured  
Housing
- C920-08.....Elastomeric Joint Sealants
- C1036-06.....Flat Glass
- C1048-04.....Heat-Treated Flat Glass

**PART 2 - PRODUCTS****2.1 DEMOUNTABLE UTILIZED-PANEL PARTITIONS**

- A. LEED Requirements:
1. Recycled Content of Steel Products: Provide steel products with minimum 25% post-consumer recycled content.
  2. Provide a minimum of 50 percent (by cost) of wood-based materials that are produced from wood obtained from forests certified by an FSC-accredited certification body to comply with FSC STD-01-001, "FSC Principles and Criteria for Forest Stewardship."

3. Provide installation adhesives, sealants, paints, and coatings applied on site and within the vapor barrier, that comply with VOC limits outlined in Division 01 Section "Indoor Air Quality Requirements."
  4. For installation adhesives, sealants, paints, and coatings applied on site and within the vapor barrier, comply with VOC limits outlined in Division 01 Section "Indoor Air Quality Requirements."  
Provide [adhesive/sealant/paint/coating/name of applicable product], if used within the weatherproofing system with a VOC content of XXX g/L or less when calculated according to 40 CFG 59, Subpart D (EPA Method 24)."
- B. Basis-of-Design Product: Subject to compliance with requirements, provide DIRTT Environmental Solutions or comparable product by one of the following:
1. Gravity Lock Systems, Inc.
  2. Herman Miller Wall Alliance.
  3. Hugh Robinson, Inc.
  4. IMT Modular Partitions Ltd.
  5. NESLO Manufacturing Company.
  6. Provincial Partitions Ltd.
  7. SmartWalls LLC.
  8. ULTRAWALL LLC.
  9. Wall Innovators, Inc.
- C. Unitized Solid Wall System and Curtain Wall System:
1. Components which can be disassembled, relocated, and substantially reused.
  2. System shall consist of vertical MDF face panels with: Chroma coat paint, fabric or vinyl wrapped or wood veneer finishes, water based finishes, UV cured.
  3. Face tiles which clad the aluminum frame, may be monolithic or segmented and will allow for integrated hang on components of other manufacturers' origin without defacing or damaging face tile, substrate of structural frame.
  4. Tiles can span off-module in segments or monoliths, vertically and horizontally.

5. Integrated accessory channels are designed into the structural frame allowing for accessible power and data; hang on accessories, storage and furniture component bearing.
6. Panel shall also provide aluminum or veneer wrapped aluminum leveling floor base, top rail (for stand alone) or ceiling track attached top track, uni-zippers or angled/pivot zipper for angled and corner connections for panel to panel connections, trim, and accessories.
7. Wall panel shall be 4 inches thick and provide 2 inches wide cavity for distribution of utilities readily accessed from either side of wall via removable face tiles.
8. Interior frame is unitized aluminum assembly to accept face tiles and any hang on components.
9. Maximum panel height is 10 feet at full 48 inch maximum width, up to 12 feet with diminishing maximum width.
10. Solid Wall System supports 14.6lbs/ linear inch functional load per ANSI/ BIFMA X-5.6-2003.

D. Unitized glazed wall panels:

1. Shipped to the site fully assembled and can fully and readily integrate with solid panels using universal connector described above.
2. Glazing shall consist of tempered or laminated glass, 3/8 inch to 1/2 inch thick.
3. Frames shall be anodized aluminum, powdercoat or veneer wrapped aluminum as above.
4. Custom color or veneer acceptable on frames.
5. Maximum panel height is 10 feet at full 60 inch maximum width.
6. Product manufactured parametric sizing.

E. Stick Built walls:

1. Comprised of same aluminum or veneer wrapped aluminum frames as above.
2. PVC gaskets and locally supplied glass, tempered or laminated, assembled on site.
3. Stick built wall shall seamlessly integrate with both wall panel types above.
4. Maximum panel height is 9 feet.
5. Maximum glass size: 9 feet high x 48 inches wide.
6. Thickness of glass: 10mm.
7. Maximum length of glass before vertical support required: 12 feet.

- F. Pivot Doors are ADA compliant in both clear opening and opening force per section 4.13 of the ADA Guidelines. Custom sizes as indicated.
- G. Hardware compatibility: Refer to SECTION 08 71 00, DOOR HARDWARE.
- H. Walls connect to and release from the base building through carpet grippers and ceiling track clips without damage. Can be mounted to gypsum board suffix or ceiling - blocking not required.
- I. Base detail and leveling capabilities - overall adjustability of 3 inches includes 2-1/4 inch leveling at base and 3/4 inch gasket flexibility at ceiling.
- J. Acoustical Rating: STC 44.

## 2.2 MATERIALS

- A. Sheet Steel: ASTM A366, Cold-Rolled Commercial Quality of the following thickness:

|                           |                     |
|---------------------------|---------------------|
| Panel Face Sheets         | 0.9 mm (0.036 inch) |
| Top Filler Face Sheets    | 0.9 mm (0.036 inch) |
| End Filler Face Sheets    | 9 mm (0.036 inch)   |
| Door Face Sheets          | 0.9 mm (0.036 inch) |
| Glazing Beads             | 0.9 mm (0.036 inch) |
| Door Frames               | 1.3 mm (0.048 inch) |
| Post Caps                 | 1.3 mm (0.048 inch) |
| Cornice                   | 1.3 mm (0.048 inch) |
| Base                      | 1.3 mm (0.048 inch) |
| Wall and Ceiling Channels | 1.3 mm (0.048 inch) |
| Posts                     | 1.6 mm (0.060 inch) |

- B. Mineral Fiber Insulation: ASTM C665, Type I.
- C. Glazing Cushions:
1. Channel shaped, continuous, of rubber, vinyl, polyethylene or neoprene.
- D. Glass:
1. ASTM C1048, Kind FT (tempered, clear), Condition A, Type, I, Class 1, Quality q3, 6 mm (1/4 inch) thick.

## 2.3 FABRICATION

- A. Demountable Unitized Panels:
1. Factory-assembled, flush, hollow unit construction; with faces smooth and free of buckles, oil canning, and seams; and insulated with solidly packed, inorganic, mineral filler.

2. Fabricate panels for installation with concealed fastening devices and pressure-fit components that will not damage ceiling or floor coverings.
3. Fabricate panels with continuous light-and-sound seals at floor, ceiling, and other locations where panels abut fixed construction.
4. Factory glaze panels to the greatest extent possible.

B. Components:

1. Fabricate components for installation with concealed fastening devices and pressure-fit members that will not damage ceiling or floor coverings.
2. Fabricate for installation with continuous seals at floor, ceiling, and other locations where partition assemblies abut fixed construction and for installation of sound attenuation insulation in partition cavities.

## **2.4 FINISHES, GENERAL**

- A. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- B. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

## **PART 3 - EXECUTION**

### **3.1 INSTALLATION**

- A. Install demountable partition systems rigid, level, plumb, and aligned. Install seals to prevent light and sound transmission at connections to floors, ceilings, fixed walls, and abutting surfaces.
  1. Installation Tolerance: Install each demountable partition so surfaces vary not more than 1/8 inch (3 mm) from the plane formed by the faces of adjacent partitions.
- B. Install door-and-frame and glazing-and-glazing-frame assemblies securely anchored to partitions and with doors aligned and fitted. Install and adjust door hardware for proper operation.
  1. Install fire-rated door frames according to NFPA 80.

### **3.2 FIELD PAINTING**

- A. Touch-up all nicks and scratches with paint, matching color and texture of baked-on enamel finish, furnished by partition manufacturer.

**3.3 DEMONSTRATION**

- A. Engage a factory-authorized service representative to demonstrate and train VA's maintenance personnel to adjust, operate, and maintain demountable partitions.

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